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LECTURES ON AMPUTATION.

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DURING the period of the war in which this country was involved for many years, an ample opportunity was afforded to the members of the medical profession, in the service both of the army and navy, practically to investigate every circumstance connected with injuries to limbs, which might render amputation necessary ; and many of them have added much to the science of surgery, by communicating to the profession generally the results of the observations derived from their peculiar occupation.

The peaceable state of Europe for nearly thirty years has, however, not only removed this source of inquiry and improvement upon the subject of local injuries, but the length of time that has elapsed has even tended to throw into oblivion the numerous recorded facts which had been accumulated.

At the same time it should be remembered that the subject has lost neither its interest nor importance ; for the rapid extension of machinery has given rise, of late, to many and frightful accidents, in which the injuries that have been suffered, though differing in their causes, are so similar in nature, to those occurring in military service, as no less to require the utmost caution in deciding the question of immediate amputation ; and in no class of accidents is this caution more especially requisite than in those which happen upon railways.

The removal of limbs by amputation seems first to have been suggested by observing the process by which nature spontaneously separates a dead from a living part in the human body ; the progressive steps of which are so obvious as naturally to give rise to the idea of quickly performing by art what nature can only effect slowly : thus diminishing the period of suffering of the patient, by removing the source of protracted constitutional irritation.

At this early period in the history of amputation, the incisions were made only through the mortified parts, leaving a dead portion still to be separated by nature ; the means of checking hæmorrhage not then being understood. Galen, in cases of mortification in which a joint was implicated, recommended amputation through the articulation, in preference

to the removal of the limb in the continuity of the bone ; but still advised that a portion of the gangrene should always be left, either to be separated by the efforts of nature, or to be destroyed by actual cautery, as circumstances might dictate. This practice was adopted by the surgeons of his period with but very little variety in treatment, varying only as to the quantity of the dead part which was to be left, and the kind of escharotic to be employed in assisting the ultimate separation.

This practice, in the infancy of operative surgery, although followed to a great extent, was not universally employed ; for the Arabian surgeons deprecated the practice, and invariably left the gangrenous part to be separated by nature's efforts only. Until the fourteenth century, no amputations were performed through living tissues ; and the only differences of practice in cases of mortification, were as to the means employed to facilitate the removal of the gangrene. At this period the invention of gun-powder produced a new epoch in the surgical treatment of severe local injuries, and surgeons were obliged to have recourse to the amputation of shattered limbs through living parts ; hence arose the invention of applying a ligature upon divided arteries. The spontaneous obliteration of the bloodvessels after gun-shot wounds, probably led the surgeons of that period to anticipate the permanent obliteration of an artery from the application of a ligature ; and Ambrose Paré seems to have been the first who recommended the amputation of living parts, having confidence in the efficacy of the ligature to check bleeding. This mode of procedure, as is too frequently the case on the first introduction of any discovery, met with great opposition, and every obstacle was offered to its employment which ignorance and envy could suggest. Nothing, however, could check an improvement so scientific and practically useful, and the employment of the ligature became universal. But still, even with this advantage, without the use of the tourniquet amputation must have been a very dangerous and tedious operation, as the vessels must have been cut through before the ligature could be applied, and without any means being employed to stop the bleeding during their application ; and, therefore, each vessel must have been tied as soon as divided. There seems to have been but little improvement in the method of amputating from this period until the middle of the seventeenth century, when some rough attempts were made by a general compression around the limb, previous to submitting the patient to amputation ; but whether with the view of benumbing the limb, or checking the circulation of the blood, does not seem very clear. M. Morell, a French surgeon, seemed, however, to take a hint from this plan, and evidently employed an apparatus for the express purpose of stopping the flow of blood during the incisions through living parts ; his contrivance was, however, so rough and complicated as to render it scarcely applicable to the purposes for which it was employed. M. Petit at once, however, saw the advantages which might be derived by a modification of this instrument, and may be said to be the inventor of the tourniquet. From that time every instrument essential to amputation may be said to be known ; surgeons having now acquired the means of preventing bleeding during the operation by the use of the tourniquet ; and after it, by the application of the ligature.

These facilities were, however, at first productive of harm, from the frequent recourse which was had to the removal of limbs in cases where it was not warrantable; and many a patient became the subject of mutilation, from the safety which the newly-invented mechanical means afforded in the operation of amputation. The surgeons of that period, led away by the novelty, and too eager for the *éclat* of the operation, lost sight of the more important object of saving the limb by the application of such medical means as were likely to assist nature in the process of restoration; and much mischief arose from the abuse of a practice, which, if it had been only judiciously employed, must have been considered one of the greatest improvements in surgery. Soon, however, surgeons began to reflect upon the impropriety of these frequent mutilations to which patients were submitted; and an opposite party arose, who espoused the practice of attempting to save every limb. Le Dran of France, and Bromfield of our country, published on this subject, and both equally condemned the frequent recourse that was had to amputation; but it may perhaps be considered, even at the present day, that, in their laudable attempts to check the needless sacrifice of limbs, they committed nearly an equal error, in too frequently leaving severe local injuries to the protracted efforts of nature; although it must be acknowledged that many cases of restoration, both of limbs and health, are recorded, in which the opposite party would have amputated.

This controversy could not, as might have been supposed, be fairly settled by these opposing parties during the heat of their argument, but yet much benefit was derived from their difference of opinion, as they showed that their respective plans were equally applicable, under particular circumstances; and that, in the one case, it was as right to attempt to save, as, in the other, it might be judicious to remove, the affected limb. Hence arose a new epoch in the history of amputation; and the greater number of surgeons recommended a middle course to be pursued, pointing out, at the same time, the various circumstances which were to be taken into consideration, before either the one plan or the other could be safely adopted; and various treatises, both in this country and in France, were written, for the purpose of laying down the rules and principles by which the practice was to be regulated.

Amputation may be rendered necessary from a great variety of circumstances, arising either from disease, or the accidental mutilation of a limb demanding the removal of the injured part for the preservation of the sufferer; and whenever the power of medicine is insufficient to remove the disease upon which the local deterioration is dependent, or the constitution is incapable of keeping up the vital action in case of severe mechanical injury, the operation of amputating the part will always be resorted to, upon the principle that it is just to sacrifice a part for the preservation of the whole.

The formidable nature of the operation of amputation, the great pain and danger more or less inseparable from it, and the circumstance of its leaving the patient mutilated and crippled for the remainder of his life, render it a matter of great importance that the decision of the surgeon should be formed upon the strictest investigation; but nevertheless,

it is often very difficult to determine whether a limb ought to be at once amputated, from fear of the constitution giving way under the continued irritation from the protracted period necessary for the cure, or whether a certain amount of risk ought to be incurred in the hope of saving the limb, the surgeon trusting to medical treatment to support the constitutional powers through the severe calls made upon them in the progress of the reparation. The character and extent of the disease or injury, the peculiarities of the structures implicated, the age, sex, and condition in life of the patient, the temperament, locality of his abode, the soundness or unsoundness of his internal organs, and his idiosyncrasy, must all be closely considered, and upon this investigation the practitioner will decide either upon the advisability of at once removing the limb, or upon leaving it to the restorative efforts of nature. Not that it is an easy task to form a correct judgment as to the probable powers of the constitution to effect reparation, or the liability of the health to fail during a lengthened period of disease and suffering; for frequently, so closely do the chances bear between the tendency of the disease to advance, and that of the constitution to repel its attacks, that conflicting medical opinions often serve to increase the difficulty, and that, too, at a moment when delay may lead to a change of symptoms which would entirely preclude the possibility of ever after resorting to the operation; and the danger occurring from such indecision applies equally to disease and accidental injury.

It does not necessarily follow, however severe the local injury or violent the disease, that immediate amputation can always be performed, for there may be concomitant circumstances that would render such practice inadmissible. For instance, in case of severe local injury, the nervous system may have received so severe a shock as to have produced that condition termed collapse, or in disease the vital powers may have been much reduced. In the first instance it is necessary to wait for reaction, and in the second for the renovation of health, before the patient could be subjected to the operation. It is, however, as I have said before, always difficult to determine the exact amount of injury which would render immediate amputation necessary; for an accident which in a robust constitution would perhaps undergo cure with but little functional disturbance, may, in a person of weak powers and irritable temperament, produce so much general derangement that it would be most injudicious to attempt to save the limb at the risk of the life of the patient. It may, perhaps, be laid down as a general rule, that in cases of fracture attended with comminution of bone, laceration of soft parts, tearing through of bloodvessels and nerves, and the laying open of large joints, amputation should immediately be had recourse to, unless there be some concomitant circumstance to prevent it. Collapse is a frequent cause of delay in the performance of amputation after severe accidents, and the surgeon should never think of operating until after re-action has taken place. It is true collapse may continue through several hours, and indeed stimuli may be required to establish the re-action; the delay caused by the prostration of the patient is not, however, so dangerous as it may at first appear to be, for during the period of the collapse

neither constitutional nor local irritation are induced, so that the quiescent state of the patient enables the surgeon to wait until the vital powers are somewhat restored, and then the operation may be performed with as much prospect of success as if under different circumstances the limb had been removed immediately after the accident. If, however, the injury be unattended with collapse, I believe that the amputation may be performed as soon as possible after the necessity for that step has been decided on. Amputation may become necessary in case of distortion arising either from accident, disease or congenital malformation; not only on account of the limb being unfitted for its own natural functions, but from its proving an impediment to the performance of other duties essential to the common occupations of life. Under such circumstances I consider a surgeon bound to accede to the request of the sufferer, to remove an inconvenience of such a permanent character; unless, indeed, there be something in the state of the patient's health to forbid the performance of the operation. In some rare cases even slight local injuries lead to the necessity for amputation, on account of their inducing so high a degree of morbid sensibility in the nerves of the injured limb, as to leave no alternative but its removal. Secondary amputation is sometimes obliged to be had recourse to in consequence of the truncated extremities of the nerves of the stump becoming affected with a peculiar morbid enlargement, attended with such acute suffering as to lead to the necessity either of their extirpation or of a portion of the stump being removed. I have seen in the practice of others, and have myself adopted, both these methods, but prefer the latter, not only because the removal of the diseased nerves is much more painful than the amputation of the stump, but also because the former operation is frequently unsuccessful in consequence of the diseased nerves setting up the same morbid action after the sensitive bulbous extremity has been removed. I remember the case of a Lieutenant in the Navy, whose leg had been amputated, but who was never free from suffering after the operation. Sir Astley Cooper cut down upon the sciatic nerves, and removed the sensitive tumor that had been formed; but the operation was attended with great difficulty, owing to the excruciating pain it caused the patient, and after all it proved useless, for in a few weeks the pain returned as violently as ever, and the stump was obliged to be amputated close to the hip-joint; this operation proved, I believe, successful in removing the nervous pains. It is not always, however, that the secondary amputation is productive of any benefit. The following is a case in which it was unsuccessfully employed:—A young woman was admitted into St. Thomas's Hospital, with injury to the wrist-joint, which subsequently rendered amputation of the fore-arm necessary. Soon after the operation she began to complain of excessive pain in the extremity of the stump, the pain being felt in two defined spots; the slightest pressure upon the parts of the surface answering to the position of the incised ends of the radial and ulnar nerves, produced the most intense agony, threatening an epileptic fit. The late Mr. Tyrrell recommended a secondary amputation below the elbow: the operation was accordingly performed, and for some time there appeared every pro-

spect of a permanent cure ; but in about three months the pain returned with its former severity, and amputation above the elbow was obliged to be had recourse to, and was, I believe, performed in the London Hospital. The neuralgic affection still, however, returned, and she came into Guy's Hospital under my care. As it appeared that so little could be expected from surgical operation, every remedy that could be thought of was assiduously employed, but the patient was very desirous that a fourth amputation should be tried ; and ultimately I removed the stump at the shoulder-joint. To my great surprise and satisfaction, from this time the pain entirely left her ; and I know that in six years afterwards she had not had the slightest return of it.

[To be continued.]

HÆMORRHAGIA FROM THE LUNGS—TREATMENT, DEATH, AND
POST-MORTEM EXAMINATION, IN THE CASE OF THE
LATE DR. JAMES A. HOUSTON.

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THE formidable character of, and the peculiarities ever attending, thoracic and pulmonary complaints, and affections of the organs of respiration, have ever presented themselves, from the days of Paracelsus, Hippocrates and Galen, against a successful termination of the treatment of these complaints. They have also been the fruitful source, the matrix, as it were, for the super-induction, vivifying and nourishment, of all sorts of theories that "consumption can be cured," and of those disgraceful quackeries which cupidity crowds into the columns of the daily press, with statements, accompanied by *affidavits*, of wonderful cures of long-standing coughs, spittings of blood, hæmorrhages, "consumption" ! and all their kindred disorders. It is not our intention to enter into an examination of the merits or demerits of the various pathological theories of physicians, and the different modes of treatment practised by them. Neither is it necessary for us to notice modern improvements, and the modern mechanical appliances ! invented and brought into requisition for the cure of diseased organs of respiration. The incontrovertible fact presents itself, as plain and as palpable as is the sun's glory at meridian, that, in accordance with hereditary predisposition, constitutional diathesis, peculiarities in temperaments, occupation, daily habits, and general mode of life, we must decide how or in what manner we shall meet and combat an enemy that is ever on the alert, one that never tires, and is forever sapping and destroying the foundations of the citadel of life. The motto adopted by Dr. Dixon, on his periodical, deserves noting. "Nature is ever busy by the silent operations of her own forces, endeavoring to overcome and cure disease. Her medicines are *air, food, water, sleep*. Their use is directed by instinct. And that man is most worthy the name of physician, who most reveres her unerring laws."

I am induced to make these few preliminary, but somewhat irrelevant, remarks, in consequence of certain articles having appeared in

several numbers of the New York "Sunday Press"; one of which, in particular, has excited considerable attention, by its reflections and animadversions, in no measured, and not very unmistakable terms, upon the treatment and lamentable death of the late Dr. J. A. Houston.

By the courtesy of the attending and consulting physicians, having been invited and added to their council, on the occasion of my late esteemed friend's illness, I am enabled to place before the world the simple facts, as they severally presented themselves in this case. I do so from a sense of justice due to, not doubting the approbation it will meet from, those eminent gentlemen who attended Dr. Houston during the few days of his fatal sickness; and who, uniting with their professional ties, their respect and consideration, graced them also with the sacred halo of friendship! On my part, therefore, it will not be necessary that I should make any comments, either upon the case or its treatment, further than simple details. It presents in itself interesting facts, which speak for themselves; instructive from certain phenomena present, and the illustrations of *ante* and *post-mortem* examinations. Proceeding, then, with the case:

Dr. James Alexander Houston, æt. 30; a native of Ireland; of nervo-sanguineous temperament, and of lymphatic or strumous diathesis. His constitutional temperament, by a casual observer, might have been mistaken for the *sero-lymphatic*. His physical appearance was tall in stature, spare in body, but of graceful form; fair complexion, auburn-colored hair, and light bluish-gray eyes; his fingers and toes long and tapering, with filbert-shaped nails. His teeth denoted his descent from vigorous progenitors, although, in his own individual case, they exemplified the strumous diathesis. His *tout ensemble* presented a striking contrast, by the side of his brother's nervous power, well-knitted frame, and faculty of endurance—he having, with that noble band of heroes, fought throughout the Mexican War, and accompanied the brave General Kearny's great undertaking across the wilderness of this vast Continent. Mentally, Dr. Houston was what is termed "nervous," excitable, or irritable; upon the impulse of a moment's notice, ready to perform the greatest action, or, from a peculiar idiosyncrasy, shrink from it in terror. When, upon such occasions, he was brought under the influence of the depressing passion *fear*, his eye-lids, lips, and the ends of the fingers, would turn to a deep purplish hue, with general coldness and pallor of the skin. As time diminished the calendar of the months towards that of *September*, a fearful restlessness and nervous excitability or depression have for many years produced very peculiar influences, and an impression on his mind and system, which presents one of those extraordinary medical facts, of which we occasionally hear. *He had a fearful pre-sentiment that he would die on the fifteenth day of September.* It will not, therefore, excite any wonder that the doctor now, with a dread of choleraic atmosphere, and with such feelings, depressions and horrors, should have sought in the whirl, turmoil, and excitements of pleasure, to overcome and remove these dreadful *incubi* of terrors.

I may here be permitted to digress, by stating a previous occurrence. It was in the vicinity of the pre-supposed fatal date, two years since,

that the doctor, having scarcely left my house, immediately returned, greatly agitated. With considerable difficulty I conveyed him into my office. He clenched me within his embrace almost with "a death's grip." Gasping for breath, he presented all the appearance of the worst state of the blue collapse in Asiatic cholera. I shook his body, chafed his limbs, dashed cold water upon his face and chest, till the circulation of the blood and respiration were partially re-established. I then poured down his throat a tumblerful of warm brandy. He sank into a profound sleep, with profuse perspiration, and awoke to his usual health and spirits. He afterwards suffered from several similar, but less intense, attacks.

While he was thus engaged, as I have stated, in the pursuit of pleasure, his beverages were free and his diet liberal. He was sojourning with his family and some friends at Bath, a neighboring sea-bathing resort. He here contracted a cold, of the sub-acute character, which settled on his lungs. His long habitual, phthisical, guttural *hems* were converted into a *bona fide* cough, superinducing expectoration of mucus slightly tinged with blood. He immediately returned to the city, and for several days attended to his usual business. Meeting with his old friend, Dr. R. D., an eminent practitioner, he was cautioned to attend to the affection whilst in its incipient state. He appointed to meet Dr. D. the same evening, which he most unfortunately neglected to do. At 4 o'clock on the morning of September 4th, he was seized with a violent fit of coughing, and ejected from the lungs about twenty-four ounces of blood. Salt and water were administered by his family attendants, to arrest the hæmorrhage, and Dr. M., his neighbor, was immediately summoned. Dr. Houston's position appeared to be most critical. In addition to the loss of the twenty-four ounces of blood from pulmonary exudation, his system was collapsed; his face, hands and skin cold, corrugated, pale, and of a peculiar purple hue. A vein in the arm was opened, and about twenty-four to thirty-two ounces of blood taken away. Tinc. opii to sustain the action of the heart, was prescribed, in alternate doses every two hours with tart. antimon. cum nit. potass., for modifying any probable undue excitement upon the arterial system. All stimulants were peremptorily prohibited, and the strictest antiphlogistic treatment ordered and observed; toast-water being allowed as a beverage, and occasionally a teaspoonful of arrow-root in some water as a nourishment. On the night of the 7th, cough, and bronchial discharge; about eight ounces of blood was expectorated. The old puncture in the arm was again opened, and from twelve to sixteen ounces of blood abstracted from the circulation.

Monday, Sept. 11.—Pulse 128; tongue coated with a dark-brown fur. Tinct. opii, and tart. antimon. cum nit. potass. alternately every two hours. Skin feverish, with much thirst. The administration of the laudanum was always followed by a moisture of the skin, with continued thirst. In the course of a half hour after this, febrile symptoms would supervene. Passed a restless night; complained of insects and reptiles being on the bed.

12th.—Pulse 140; tongue dry, and covered with a thick blackish-

brown fur; eructations from the stomach, and ejections from the bowels of immense quantities of wind. Tinct. opii, tart. ant. cum nit. potass., as usual. Catching with the hands at imaginary objects in the air. Bowels costive.

13th.—Symptoms the same; tongue furred as before; thirst, fever and restlessness; secretion of urine very scanty, with the frequent desire to micturate. A minister of the gospel attended, after which his lawyer made his will. Medicines as usual. Dr. D. made a friendly visit, and was added to the council of physicians. Dr. D. proposed an opposite treatment to the one in force, and after a few hours it was partially adopted. A tablespoonful of brandy to the tumbler of iced water was allowed, in place of the toast-water. 6, P. M., more cheerful; voice firm and strong; pulse 128; breathing free, with slight rhonchus; expectorating a transparent pearly mucus, occasionally grumous or streaked with blood or minute clots. 8, P. M., restless; a mustard poultice applied over the ensiform cartilage; 60 m. tinct. opii. 10 o'clock, tart. antimon. cum nit. potass. 12 o'clock, 40 m. tinct. opii. Imagination of reptiles, &c.

14th, 1 o'clock, A. M.—Pulse fluttering, 160; lethargic and muttering delirium. On my own responsibility gave a wineglass of brandy in the same quantity of water, with a few drops of the compound tincture of cardamoms and ginger. 2 o'clock, mutterings ceased; skin moist; lethargic, with frequent lucid intervals; pulse 128, and asking for brandy. 8, A. M., tongue clean round the edges and at the tip, dry but coated with dark-brown fur down its centre; thirst; restlessness; pulse 130; tympanites and much distress about the abdomen. He demanded *the day of the month*; informed him that it was "the 21st and the sun was crossing the line." "*It's all right, then,*" he replied. A few minutes after this, his pulse fell to 120; spoke rationally. Medicines as before. 4, P. M., much distressed, the abdomen being painfully distended. Administered an injection of castor oil and warm water, which was dejected much discolored, with a few pea-sized scybalæ. 6, P. M., an active cathartic was proposed; but opposed, on the ground, that as the patient had taken nothing but liquids internally, nothing could be in the intestines to bring away. Cathartic adopted and administered. Defecation of immense quantities of fetid fæcal matter and *flatus*, followed in two hours or so with marked relief. Tinct. opii, &c., as usual. Constant desire to micturate; passed about two ounces of very dark-colored urine; restless night, with mutterings, lethargic, slight delirium. Complained of poisonous reptiles. Administered a wineglass of brandy, with the comp. tinct. cardamoms and ginger in water. Pulse during early part of night 140; reduced to 120.

15th.—Great anxiety amongst the members of the family, who had caught the infection of the doctor's mind, that he would die on this date. Symptoms the same, but less in intensity. Mutterings; skin moist and cool; tongue clean, with the exception of a dark patch, about the size of a shilling, upon the posterior portion; appetite good. 4, P. M., pulse 120; cheerful. Feeling his own pulse, suddenly he exclaimed—"you are sure this is the 15th?" "No," was the reply, "how for-

getful you are; this is the 22d." "I think I shall get over it, then; I feel a weight off me already." Medicines as usual. Passed a very restless night.

16th.—Symptoms—muttering delirium; grasping at the bed-clothes and gathering them in heaps, and then throwing them violently from him; clutching at imaginary objects in the air; occasional lucid intervals for a moment or so. His fever evidently partook of the *typhoid* character. Diluents as a beverage discontinued; tympanites. Beefsteak and small portions of brandy and water allowed, which (strange to say) he partook of with relish and avidity. Passed the afternoon in comparative quiet; pulse 126; skin moist; tongue clean, with the exception of a small spot on its centre. 7, P. M., rallied considerably; cheerful. 11, P. M., restless; 30 m. tinct. opii, administered by an attendant in accordance with directions. Excessive moisture of the skin; delirious and wandering; constantly desired "to go home," and making attempts to rise from his bed. Attempted to micturate, without effect. Subsultus tendinum, and grasping the bed-clothes into heaps. Complained of the appearance of hideous monsters, &c.

17th, 3 o'clock, A. M.—Profuse clammy sweating, with a vermicular pulse, 160, fluttering beats, and at times almost imperceptible. Summoned the council of physicians 8 o'clock, A. M. Pulse 130; intense heat and profuse perspiration; when placing the hands under the bed-clothes, it was similar to a "hot vapor bath"; breathing more free, with less rhonchus. Auscultation denoted *no* congestion, except the prior congestion of the inferior portion of the left lobe of the left lung. A cantharides blister applied on the surface of the abdomen. 9 o'clock, rallied considerably; pulse 126; profuse perspiration. 10½ o'clock, severe rigors; breathing short; tongue and voice tremulous. 11 o'clock, in a state of phrenitic excitement, he suddenly rose up in his bed, and made the most violent attacks upon his attendants, uttering the most piercing exclamations. It required physical force to retain him in his bed. 11½ o'clock, expired.

Post-mortem Examination, 19 hours after Death.—Present, Dr. F., Dr. K. and two assistants, Dr. D., Dr. V. and Dr. M. The examination was made by Dr. K., an old and valued friend of Dr. Houston's, who performed the painful task in a manner, and with a skill and delicacy, which alike did honor to his head and heart. The usual sections were made, and the thoracic and abdominal viscera exposed. Their normal position was correct. The heart and liver were perfectly healthy. The gall-bladder was unusually distended, and transfusion of bile had taken place in the surrounding viscera. The right and left lobes of the lungs were, in two thirds of their substance from the *inferior* edges, completely saturated; or, if it were possible to apply the term—there was a *drenched apoplexy of the lungs*. In the substance of the upper lobe of the right lung, there existed an abscess of the size of a pullet's egg, with a recent clot of blood in its centre. In both of the diseased portions of the lungs, and their several lobes, there existed the ossified remains of atheromatous deposits. The parenchyma of the upper thirds of the lungs were in a perfectly healthy state—the abscess, of course, excepted.

Brain.—A slight effusion in the several ventricles of this organ. The arachnoid presented a turgid condition of its bloodvessels, and was adherent to a small space on the right hemisphere of the cerebrum, under which was a slight softening of its substance. Portions of the cerebellum were rigid and fibrous. The cerebrum, with the exception stated, was also rigid, and its substance somewhat exsanguinated throughout.

Bowels normal in their external appearance—but much distended with flatus, and studded with small scybalous deposits.

New York, October 18, 1849.

SKETCHES OF EMINENT LIVING PHYSICIANS.—NO. XIV.

SAMUEL JACKSON, M.D., PROF. OF INSTITUTES IN THE UNIVERSITY OF PENNSYLVANIA.

"You then, whose judgment the right course would steer,
Know well each *modern's* proper character:
His fable, subject, scope in every page;
Without all these, at once, before your eyes,
Cavil you may, but never criticize."—*Pope*.

"Of manners gentle, of affections mild;
In wit, a man; simplicity, a child;
With native *honor* tempering virtuous rage,
Formed to delight at once, and lash the age;
Above temptation in a low estate.
And uncorrupted e'en among the great:
A safe companion and an easy friend,
Unblamed through life."—*Pope*.

How very naturally do men of superior intelligence take their position "in line," and command that attention which power of any kind always can. It is true, that many years passed, in a hard and protracted struggle, ere Dr. Samuel Jackson rose above the waters of tribulation, and steered his ship, with all her sails set, into the current of popularity and full success: yet he ultimately did, and *how* he did, he to this day hardly knows.

A poor apothecary-boy, left at an early age, to carry on and control an extensive business, and at the same time to support an aged, beloved mother, educate himself, and lay the foundation for future distinction; these were the circumstances which surrounded the youth of Dr. Jackson. "The gods," says the Greek proverb, "when they endow an individual with genius, accompany that genius with poverty; in order that the pressure of circumstances, like the crushing of the rose-leaf, may bring out the sweet spirit within." A sad heritage; and how many does the physician, of a few years' practice, see sink, irretrievably, to the grave, from this "pressure of circumstances." Here, a fine painter, whose noble soul scorns the petty means of gaining gold, which mere worldly men stoop to—or rather practise (they are too low to stoop)—here, I say, a fine painter sweetly and silently sinks, from a dark, damp garret, into a lonely grave, "unseen, unknown, and unlamented." There, a noble poet, whose sweet and bewitching numbers, had they but been wafted upon the breezes of prosperity, had enchained and purified the hearts and souls of men. See him; disappointment has done its work,

and the bowl, grasped with convulsive hand, finishes the dreadful suicide. Then, again, a long life is passed in dreary poverty, and existence merely tolerated, from habit, until, after a life, or rather a slow death, protracted to a most dreary and comfortless extent, the noble sufferer "wraps the drapery of his couch about him, and *gives*, not *yields*, his breath."

Oh my country, couldst thou but see the crushed hearts, and blighted minds, which are yearly sent to their own and last account, "unappointed with the oil of their existence, fame and competency," thou wouldst feel that although in thy breast thou nourishest many noble children, yet many, many more, die prematurely, and sink to an unhonored grave. But enough—let us to our "sketch."

Doubtless the studies connected with the profession of an apothecary turned the inquisitive mind of the young, nervous, and excitable Jackson, to a more extended research into the mysteries of nature, and induced him, regularly, to commence the study of the healing art. We have heard him remark, that, "armed with the diploma, and the prevailing doctrines of the day," the sanguine youth set out, expecting to vanquish every disease, "with more than the skill and valor of a Don Quixotte." But, like the first case of fever, so graphically described by Dr. Meigs, in which, *secundum artem*, he "gave calomel;" and the next day, the fever continuing, by the same rule, he "gave calomel," and so on, until, to the astonishment of the young doctor, his patient died; like this first case, the early practice of Dr. J. and some few of his personal friends of the same day, was so unsuccessful, that a revulsion of feeling took place, and all confidence in the profession was lost, and its practice abandoned in despair. Returning to the pestle and mortar—his father having, in the meantime, died—the young doctor spent "fifteen years" in attending to the sale of drugs; and honorably settling up his parent's unsettled accounts, meanwhile reading more in the book of nature and of medical science. He in fact verified Pope's lines—

"A little knowledge is a dangerous thing,
Drink deep, or touch not the pierian spring."

Having armed himself with additional, extensive reading, and settled his father's accounts, our hero again felt like trying the *ars medendi*. He did so, and took an office, which, when Cato began to look about, was on the corner of 8th and George streets. Very soon, by the aid of the many acquaintances made at his late business, with the amiable and intelligent character of the doctor, he was enabled to enter into an extensive practice. Dr. Chapman, who has always been a patron to real merit, encouraged him, got him to lecture in the Philadelphia Institute on *Materia Medica*, and, not long afterwards, succeeded in having him appointed adjunct to himself—in which latter office Dr. J. lectured on Institutes.

As a lecturer on *Materia Medica*, Dr. J. was *very* popular—his winning manners, peculiar chirping voice, quick, nervous, and enthusiastic mode of speaking, made him at once loved and respected. Cato remembers well the occasional visits he used to make to hear Dr. Jackson lecture on *Materia Medica*. His long familiarity with practical Pharmacy, his extensive reading, and a natural turn for the *natural*

sciences, made him very successful as a teacher of this branch. His suggestions were bold and ingenious, and his speculations are doubtless remembered by many a practitioner, in various parts of the United States, to this day.

When, by the vacancy of the chair of *Materia Medica*, caused by the removal of Dr. Cox, it became necessary to fill it, all eyes were turned to Dr. Jackson, and all his admirers hoped that he would get the chair. The Trustees, however, re-organized the school, by creating the adjunctship occupied by Dr. J. into a chair, and appointing him the professor. He has continued since that time, 1836, to hold this chair.

As a clinical teacher, in the Old Almshouse, Dr. J. was most effective and popular; and in the distribution of cases, he was very happy. Clinical Instruction was by him conducted scientifically.

Dr. J., we believe, is originally of our city; and has spent nearly all his life in Philadelphia. Captain of a Company of Cavalry in the late war, the country had well nigh secured to itself a soldier, instead of Medical Science a most able and successful champion, had not fortune changed the scene of his operations.

In private life, Dr. J. is one of the most amiable and sociable of men. Long a bachelor, he was sent, previous to the advent of the cholera in 1832, to Canada, in company with Drs. Meigs and Harlan, to investigate the nature and treatment of this fell disease. The daughter of a British officer, with whom he became acquainted during this visit, shortly afterwards became his wife. We believe he has no children.

Dr. Jackson's medical productions are characterized by close observation, and ingenious reasoning. The last article in our Journals, and which was read before the American Medical Association, of which he is a member, is on the use of tea, coffee, &c. &c., and bears the stamp of his original and discriminating mind. His "Essays on Cholera" are deservedly popular. Many papers on fevers, &c., are scattered through the Medical Journals of our country. Always up to the day in which he lectures, or writes, he verifies the proverb, that "Genius is always young."

About five feet six and a half inches in height, with a long head, low in the region of self-esteem, full in that of amateness; all the perceptive faculties, benevolence, and the semi-intellectual organs, full; with long, light hair, now become quite grey; in person, formerly quite thin, but now becoming (since his marriage) more full, and *embonpoint*; a small *twinkling* grey, or light blue eye; a sweet smile always on his mouth; his arm, in speaking, moving occasionally up and down, and the head doing *likewise*; dressed in anything, scarcely ever in sober black—and we may see Dr. Jackson. He walks, and moves, with a peculiar halt, indicative of debility in one leg; in both of which he formerly suffered much and long-continued neuralgia. We well remember hearing him lecture on the latter subject, shortly after his marriage; and after enumerating quite a number of remedies, for this disease, stating very *naively*, that one of the best remedies was the soft hand of a lady, moved gently over the surface. The class, by their plaudits, seemed to understand the allusion.

As a practitioner of medicine, he is highly esteemed ; has a large and respectable practice, which he attends to, in a carriage, drawn by two black horses. The advocate of no general, or special, system in our science, Dr. J. is really eclectic ; and although when Broussais first came up, he was a strenuous advocate of many of its doctrines, yet he was always discriminating and careful. So also of other improvements in medicine, all of which find in Dr. J. a warm but judicious friend.

His manners, especially in a sick room, are peculiarly kind and conciliatory ; fond of conversation, and capable of adapting himself to all grades of society, there is perhaps no man in our city more popular, personally, both in the profession and out of it, than Dr. J. Time, it is true, is gradually "hewing him down," with the rest of us ; but he bears his age—"frosty but kindly." Long may he live to adorn the profession which he practises and teaches with so much enthusiasm and success ; and when dead,

Bless'd be his dust, and let eternal fame
Attend his manes, and preserve his name.—*Thebais.*

CATO.

SPONTANEOUS CURE OF A WOUNDED TRACHEA.

BY Z. HOWE, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

IN the early part of last March an Irish woman, about 50 years of age, dissatisfied with this country, applied a razor to her throat, divided the trachea at the thyroid cartilage, and opened the œsophagus. The hæmorrhage had subsided when she was found, and she managed to conceal the affair for two days, and let it pass for "*a great nose bleed and a bad cold.*"

I saw her on the third day, with the attending physician. When in a horizontal position, the ends of the divided trachea were about an inch apart, with considerable tendency to ossification. The greatest part of what she attempted to swallow gushed out at the opening, and the wound was exceedingly foul and offensive. This was a short visit ; recommended clean rags, gave a fatal prognosis, and departed.

Not hearing of her death, as I expected, I called occasionally and watched the progress of the case as a matter of curiosity. In about three or four weeks the opening in the œsophagus closed, and the swallowing became free. The wound filled with healthy granulations, attended with a profuse and long-continued discharge of pus and mucus. At one period the nose and lips might be compressed, and the respiration would go on through the wound ; or the wound might be closed and she would breathe in the natural way. She was repeatedly distressed with detached portions of cartilage, for she says she cut more than once, and these pieces of cartilage were from time to time forced out of the wound by severe coughing. At the end of five months the wound was closed, and has remained perfectly sound ever since. She enjoys good health, with the exception of a degree of hoarseness, which she always attributes to a temporary cold.

When it was ascertained that the wound would heal, I expected that an aperture would remain, requiring a surgical operation. In this expectation I was agreeably disappointed. From the result of this case I think we may safely infer that there are such things as *self-limited diseases*.

One peculiarity in the case, perhaps hardly worthy of notice, was the transverse direction of the incision. We almost invariably find, in such attempts at suicide, the end of the incision higher on the left side than on the right. This is supposed to happen in consequence of the involuntary dropping of the right elbow at the time of the operation. It was not so in this instance.

Billerica, October, 1849.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, NOVEMBER 21, 1849.

Health in California.—No facts have yet been presented to show that life is more perilled in any part of California, by the climate, than in the New England States. Very recent advices indicate that the deaths, in proportion to the whole number of emigrants who have arrived at San Francisco, are really few in number. Even the vertical sun, pouring down upon the heads of the excited gold diggers at the Placers, creates much less sickness than could rationally have been expected, located as they are in a new country, surrounded by strange and exciting scenes, and in the midst of privations to which most of them are wholly unaccustomed. Physicians are represented to be well paid, whenever they are consulted—receiving sixteen dollars for a professional visit. Some have actually taken a hundred dollars a day. But a practice of that profitable kind cannot be expected to last long in a country as healthful as the neighborhood of San Francisco, though sudden alarms in regard to the public health would naturally enough give occasional unwonted activity to medical practice. But well-taught physicians and surgeons will always be sustained in communities where intelligence characterizes the people, as it does there. The new inhabitants have carried with them, from their father-land, kind sympathies, regard for the sciences, and the precepts and ordinances of religion. Physicians, therefore, will continue to be in demand, notwithstanding the hundreds which are already there or are on their way, and notwithstanding the general healthiness of the place. It is presumed that many more physicians might now be profitably employed, professionally, in California, besides enjoying rare and unprecedented opportunities for laying the foundation of fortunes, by the purchase of lands, &c. Never were such strong inducements held out to those of a bold, enterprising spirit, as are now opening in that rising State. Instead, therefore, of wearing out life by hopes deferred, young, ambitious medical aspirants, who have no very stringent ties to bind them here, would there have a clear field before them, and space enough for displaying all their powers most advantageously. On the other hand, those who have already located themselves and been patiently waiting one or

two years at home, to be *in demand*, should be firm in the determination of remaining where the battle is already half won. Patient waiters are no losers. To abandon a post, when the object of its maintenance is nearly brought within grasp, would be the *ne plus ultra* of bad management. Business invariably comes, if we are capable of performing it, and wait long enough to have it known that we intend to be patronized.

Contributions to Physiology.—If the patrons of the New Orleans Medical and Surgical Journal do not fully appreciate the ingenuity, originality and raciness displayed in the communications of Bennett Dowler, M.D., of that city (of which, however, there is little doubt), we should be glad to receive them into our own pages. On whatever subject he writes, the scholar and the philosopher are discoverable. One of the latest papers from his pen, possesses uncommon interest, from the circumstance that it throws stumbling-blocks in the way of modern physiologists, that were never contemplated by the erudite, far-seeing disciples of the present school of anatomists, or rather physiological inquirers. These new anatomical researches, instead of confirming old and settled theories, are actually overturning them. And further, psychologists will find that Dr. Dowler has also made business for them, too, since the fact is placed by him beyond question, that consciousness, in one animal at least, is wholly independent of much of the organic machinery heretofore considered essential to its manifestation. Yet new and unsuspected avenues for exploration are opened, through which light begins to glimmer from a point where all was darkness of the profoundest character.

Dr. Dowler, in the presence of Dr. Powell, cut down through the muscles of the neck of an alligator, and divided the cervical vertebræ and the spinal cord—so that the finger was passed between the two cut parts. About three-quarters of an hour after, a transverse incision was made midway between the shoulders and hips, and the spine and cord divided with a saw—exposing the cavity of the abdomen. A half-hour after, the whole of the internal viscera was dissected out from the body and removed, and the sympathetic nerve destroyed—which required the time of an hour. Yet, for a period of more than two hours, the alligator exhibited complete intelligence, volition and voluntary motion in each and all divisions of the body. "It saw, heard, felt and defended itself—showed anger, fear, and even friendly attentions to its keeper, a black boy." Although in the highest degree exciting as well as instructive, we must pass over the remainder of the notes on this particular experiment, as well as the deductions of Dr. Dowler from the phenomena presented. In a subsequent experiment, the following extraordinary circumstances were noted:

"Having observed that an alligator had become feeble, I determined to kill it for dissection. On taking hold of it, it seemed much alarmed, and cried several times, 'Houpe!' 'Houpe!' This is the only articulate sound that I have ever heard from an alligator, and it is, I believe, peculiar to the young animal, and is never uttered but when danger is suspected; it appears to be the synonym of the word '*Help*,' the sound of which, it very much resembles. It hissed, and attempted to bite. The upper portion of the skull, including a horizontal stratum of brain, was removed. Hæmorrhage, to a considerable extent, followed; the eyes closed. The animal no longer attempted to bite. It performed, however, a series of voluntary motions, intelligently directed, to ward off injuries. The entire brain and

the medulla oblongata were removed, without diminishing its power to direct its limbs to any part that was pained by the slightest touch of a pin or knife. A metallic rod was passed many times within the spinal canal, completely destroying the spinal marrow beyond the hips. The animal appeared to die very soon, the tail excepted. It was, however, afterwards found, that both voluntary motion, and sensation, remained, though their manifestations were greatly impaired. The fore-legs were slowly and feebly directed towards irritated parts; these motions disappeared in a very few minutes. The tail twitched frequently, for an hour after, as if pained by the dissection of the trunk and viscera. Both before and after its removal from the body, the heart acted regularly for four hours. The right auricle was the first to collapse."

In another experiment, Dr. Dowler says—

"The decollation was not followed by a projecting stream of blood. as is usual; no ligature was applied to the great artery of the neck. The dull hatchet used in severing the spine of the neck, had probably bruised the artery as in torsion and gun-shot wounds. Hence the hæmorrhage was not great, though considerable.

"I carried the handle of the knife towards the eye, to ascertain whether it would wink, whereupon the ferocious separated head sprang up from the table with great force, at me, passing very near my breast, which received several drops of blood; it alighted upon the floor, from six to eight feet distant from its original position! It missed me, because I was standing at the side, and not in front of the head. Although I have examined carefully all the muscles of the head, I cannot find one that accounts for this feat of combative muscular motion. The angles of the mouth recede so much in this animal, that after decollation, including the medulla oblongata, the head seems almost like two separate pieces—the superior and the inferior maxillary bones being joined chiefly by the great masseter muscles, for only a short distance. These great muscles (the masseters), which are curved, having their concavity anteriorly, are adapted only to vertical action, as in biting—the great muscles of the tongue act backward and upward against the palatine region; whence, then, this quick, violent, forward motion, or rather, as in this case, diagonal leap of six or eight feet?—for the head deviated to the left, where I was standing, evidently with the intention of biting me. The trunk, in this, as in all cases, possessed no power of forward motion. This curious fact with respect to decapitated animals, noticed by M. Magendie and other vivisectioners, has been attributed to the *loss of the cerebellum*; but whether this loss of forward motion in the alligator, be owing to a division of the spine, and great muscles, or to the separation of the larger or smaller brain, or both, is not very evident, yet the fact which I have noticed respecting the forward motion of the separated head, is, perhaps, a circumstance favorable to this view. That a voluntary, spontaneous and powerful motion, in fact a diagonal leap, should be performed by the separated head, must therefore appear astounding to one acquainted with the muscular organization. It is difficult to understand how the cerebellum could thus act alone."

If we pursue the subject much further, we shall draw too liberally, perhaps, from Dr. D.'s article. In closing, therefore, our remarks, the concluding words of the author of these startling experiments are appended. "On the whole, it may safely be concluded, that voluntary motion is neither directly communicated from nor regulated by the brain, or the

cerebellum; that the muscles, in connection with the spinal marrow, perform voluntary motions for hours after having been severed from the brain; that these motions are not only entirely independent of the brain, but may take place, though imperfectly, after the destruction of the cord itself; that the trunk, as well as the brain, thinks, feels and wills, or displays psychological phenomena; that the *sensorium* is not restricted to a single point, but is diffused, though unequally, or in a diminished degree, in the periphery of the body; and that actions which take place after decapitation, as described above, are in absolute contrast to *reflex actions*, being sensational, consentaneous, voluntary, and in other respects dissimilar."

Animalcula in Cholera Patients.—An anticipatory sheet from the forthcoming number of the Western Lancet, of Cincinnati, gives the results of Dr. Mussey's microscopical discoveries in the fluids of cholera patients, together with his son's researches and detection of animalcules in the pustules of smallpox, and in the atmosphere during the prevalence of the latter disease. Dr. Mussey has found in a shred of the *vastus externus*, ten hours after death from cholera, multitudes of globular animalcules. Minute details are given of the appearance and physical character of these little monsters, playing in the secretions of the human body, like the unnumbered millions of aquatic animals in ponds of water. One variety "*more deliberately, with lateral flexure of the body, like a serpent on the ground.*" "If," says Dr. Mussey, "the animalcular theory of cholera should be confirmed, by a better acquaintance with the habitudes of these myriads of microscopical existences, we may hope then to explain the mysterious movements of this black death." We have laid this extra sheet aside for further use.

With such extraordinary facts as the microscope reveals, in regard to the condition of organic structures, one of the next astounding revelations may be, that all animal bodies are aggregations of inferior animals—which, however minute in the scale of creation, are each influenced by appetencies, sensations, desires and determinations, wholly independent of each other, however linked together to produce a perfect organization. Much has been added to our knowledge by the developments of science; yet they are but the beginning of discoveries.

Boston Eye and Ear Infirmary.—The new edifice in Charles street, is nearly ready for the reception of patients. It is to us a complete architectural abortion. There is neither elegance nor convenience discoverable to our eyes, in its exterior. A beautiful site for a public building has, we think, actually been spoiled. At some future period, when the trustees get fairly sick of it, as they will, the wings will make a very comfortable stable, being sufficiently high between floors for a horse to stand without striking his head. An alderman, such as have been fattened at the expense of the treasury of Boston, in past times, would have a tight squeeze to enter the front door. And how perfectly absurd to have a kitchen and half a dozen other essential apartments half under ground on a wharf. Foul odors, imperfect drainage, prematurely decaying floors, with an occasional high tide leaping in at the basement windows, will convince the committee of superintendence, by and by, that a gross mistake has certainly been made in the design of the new house. The old Green-Street Infirmary, with all its unfitness, is a noble combination of wood, brick and mortar,

compared with the new one. Fortunately, the medical officers of the institution are unexceptionable; the patients, therefore, will be carefully and skilfully managed, as heretofore. With the means at the disposal of somebody, it was due to the metropolis of Massachusetts, that this excellent charity should have been more elegantly housed and some reference had to a refined architectural taste.

Yellow Fever in Charleston, S. C.—For the first time since 1839, yellow fever has prevailed in an epidemic form in Charleston. Its appearance was preceded by unusually hot weather during the latter part of the month of August. A violent thunder storm—one of the severest we have ever known—accompanied by a heavy fall of rain, occurred on the first of September. This was succeeded by north-east winds and cool weather for a fortnight, in spite of which the disease spread slowly and steadily. The mortality has been as follows—From occurrence of first case (Aug. 6th) to Sept. 5th, 7 deaths; for week ending Sept. 15th, 7; ending Sept. 22d, 17; ending Sept. 29th, 11; ending Oct. 6th, 18; ending Oct. 13th, 23; ending Oct. 20th, 13; ending Oct. 27th, 13; total deaths, 109.—*Charleston Medical Journal.*

Medical Miscellany.—Prof. Chas. A. Lee, of New York, who has been in Europe during the past summer, for relaxation and professional observation, is expected home in December.—The cholera has made sad destruction among the Kickapoo Indians, in the Witchitan mountains.—Dr. Stal-land, of Dearborn Co., Indiana, is accused of murdering his wife.—Dr. Buckingham, of this city, has been appointed, by the Directors of the House of Industry, South Boston, physician of that institution. The salary is said to be only three hundred dollars per annum—a sum contemptibly mean.—Dr. Stedman's re-appointment to the Boston Lunatic Hospital, for the ensuing year, has finally been completed by the Board of Aldermen. He is not allowed a student for an assistant, as heretofore.—Dr. Stone, of Boston, is considered the most expert phonographist in this country. One can hardly articulate so fast that he cannot preserve every word, with surprising accuracy.

ERRATA.—Readers are requested to correct with a pen the following errors in the matter of last week's Journal—two of which were incorrectly written in the manuscript, and the other was a typographical error. On page 294, line 21, for "humanity," read amenity; page 298, line 9, for "Oct. 6th," read Sept. 15th; page 304, line 10 from bottom, for "Dr. Morrison," read Dr. Morria. We take this opportunity—not with any particular reference to the above—of reminding writers for the Journal of the importance of care in preparing their articles. It is true there is seldom anything received from them but can be deciphered, and is in some passable shape; but oftentimes much labor would be saved us, and the risk of typographical errors lessened, by a little more attention to the construction of sentences, and also to the legibility of the writing, especially of names and quotations in other languages.

TO CORRESPONDENTS.—Dr. Willard's report of cases of Acute Periostitis has been received.

MARRIED.—Thomas W. Aspinwall, M.D., of Seekonk, Ms., to Miss Maria Amelia Bailey, of Little Compton, R. I.—In Rockville, Conn., Dr. H. Dewing to Miss Sarah Hammond.—Dr. Lucius Sperry, of New Britain, Conn., to Miss J. Kelsey.

Deaths in Boston—for the week ending Saturday noon, November 17th, 52.—Males, 19—females, 33. Accidental, 1—burn, 1—disease of the brain, 2—consumption, 12—convulsions, 2—childbed, 1—dysentery, 2—diarrhoea, 2—dropsy, 5—epilepsy, 1—typhus fever, 2—scarlet fever, 3—lung fever, 2—brain fever, 1—typhoid fever, 1—infantile diseases, 6—inflammation of the lungs, 2—old age, 1—scalded, 1—teething, 2—worms, 1—gunshot wound, 1.

Under 5 years, 19—between 5 and 20 years, 5—between 20 and 40 years, 16—between 40 and 60 years, 5—over 60 years, 7. Americans, 16; foreigners and children of foreigners, 36.

Fair of the American Institute—Dental Apparatus.—The annual fair of the American Institute was held at Castle Garden in the month of October, and the collection of articles of manufacture, there exhibited, was as large and attractive as on any former year since the organization of the institution. The articles exhibited in the dental line were less than usual, embracing some half a dozen cases, containing artificial teeth, single, and in blocks, a few of them mounted for actual service, but by far the greater part merely for show. There were no teeth there which were considered worthy of special recommendation by the judges appointed to examine and report upon this branch of manufacture.

A dentist's press, intended for compressing gold plates into form, was the only article which the judges thought of sufficient importance to elicit a recommendation from them, and this they considered too small for the purpose intended. One constructed upon similar principles, sufficiently large for all practical purposes, might prove to be a useful article—though it is doubtful whether it would supersede the drop or hammer.

There was also a case exhibited containing two beautiful chloroform inhalers; and one entire upper set of teeth, upon Mr. Rigg's principle of atmospheric pressure, which it was stated had been worn six years. These were manufactured by Mr. Barlow, of this city, and showed a good degree of mechanical execution. The inhalers were of silver, and very beautiful.

A dentist's drill, invented by Mr. John Lewis, of Burlington, Vt., intended to drill in any direction, was exhibited by a city dentist. It was a beautiful piece of mechanism, but of very little service in the hands of the dentist. With the above exceptions, the dentist's cases contained nothing worthy of notice.—*New York Dental Recorder.*

The Cholera in Buffalo, N. Y.—The whole number of cases reported to the Board of Health from May 30th to Sept. 7th, was 2,505; number of deaths during the same period, 858, making a ratio of mortality as 1 to a fraction less than 3. The question may arise, in how far the reports to the Board of Health are to be relied upon, as embracing, in the first place, veritable cases of the epidemic, and, in the second place, comprehending all, or the greater portion of cases which occurred. As respects the first point, the profession of the city were united in their views of the criteria necessary to the diagnosis of the disease, and, we believe, as a general remark, were careful to recognize as cases of the epidemic, only those in which the evidence was unequivocal. Moreover, the Board of Health, consisting of three members, at first embraced two medical gentlemen, Drs. Haddock and Barnes, who, in conjunction with the Health Physician, Dr. J. S. Trowbridge, decided on the merits of cases of a doubtful character, frequently rejecting cases which were obviously deficient in diagnostic traits. Still, it is altogether probable that some cases may have been accepted by the Board, which were properly only cases of cholera, or the diarrhœa which generally precedes cholera, and, during the prevalence of the epidemic, affects large numbers without eventuating in the disease. The fact that but few irregular practitioners were in the habit of reporting cases, renders the records of the Board much more reliable, as respects the point under remark, than they would otherwise have been. The second inquiry, viz., if these reports included all, or nearly all the cases that occurred, cannot be answered affirmatively. We believe that physicians were generally faithful in reporting all their cases, but omissions would, doubtless, sometimes occur from inadvertency or negligence.—*Buff. Med. J.*